RADIOCHEMISTRY TECHNICIAN
JOB PERFORMANCE MEASURE

TASK CODE: TRC-F03

TASK: Perform Sample Precipitation

NAME: _____ **SSN**: _____

REFERENCES:

1. WP 12-RL1011, Elemental Separation - Fission Products
2. WP 12-RL1012, Elemental Separation - Transuranic Products
3. CF-4.08, Sample Preparation Techniques
4. CF-4.07, Tracers and Carriers

TERMINAL OBJECTIVE:

Given the necessary equipment, perform sample precipitation per WP 12-RL1011 and WP 12-RL1012.

CONSEQUENCES OF INADEQUATE PERFORMANCE:

Improper analysis results
Hazardous waste spills

HAZARDS (PERSONNEL/EQUIPMENT STATUS):

Exposure to acids and caustics

PRE-REQUISITE TRAINING/ TASK COMPLETION:

1. CF 4.00 Series
2. TRC-A13, Control Radioactive Sources
3. TRC-F01, Prepare Reagents

TOOLS/EQUIPMENT (MATERIALS REQUIRED):

1. Deionized water
2. Chemicals
3. Tracers/Carriers
4. Suitable containers
5. Centrifuge
6. Prepared reagents

Instructions to Trainee: You shall acquire the necessary references and equipment, and complete all required documentation. Knowledge requirements shall be completed with 80% or greater accuracy. Critical step performance shall be completed with 100% accuracy.

Instructions to JPM Evaluator: The trainee is to perform the terminal objective, without assistance, on the job site. Provide clarification of requirements if requested by the trainee. You are encouraged to ask relevant questions to verify trainee understanding. If the trainee fails this JPM, clearly document the reason for failure and forward to the trainee's manager. Successful completion of this JPM shall be recorded on the trainee's qualification card.

KNOWLEDGE REQUIREMENTS:

Reference	Knowledge Requirement	Pass/Fail
1,2	State the PPE required when handling acid or caustic solutions.	
1,2	State the PPE required when handling dry chemicals.	
1,2	Describe the various containers available that are suitable for sample precipitation.	
3	Describe the difference between precipitation and coprecipitation.	
4	State the purpose of a tracer.	
4	State the purpose of a carrier.	
3	Discuss the handling requirements during the use of tracers or carriers	
1,2	Describe the safety hazards associated with the use of a centrifuge	
1,2	Discuss how to determine the appropriate tracer/carrier.	

PERFORMANCE REQUIREMENTS:

Reference	Performance Requirement	Pass/Fail
1,2	Don the appropriate PPE.#	
1,2	Acquire the required constituents/equipment for sample precipitation.#	
1,2	Select a suitable container based on the sample precipitation technique being utilized.#	
1,2	Add a tracer/carrier to a sample requiring coprecipitation.#	
1,2	Perform sample precipitation using a centrifuge.#	
1,2	Decant a centrifuged sample.#	

1,2	Perform sample coprecipitation.#	
Reference	Performance Requirement	Pass/Fail
1,2	Place the prepared reagent and the associated constituents in the proper storage locations.#	
1,2	Document the use of any tracers or carriers in the Radiochemistry Logbook.#	
1,2	Place decant in the proper storage location.#	

# indicates a critical step

FINAL EVALUATION: PASS FAIL

COMMENTS:

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EVALUATOR SIGNATURE: _____ **DATE**:_____

TRAINEE SIGNATURE: _____ **DATE**:_____

MANAGER SIGNATURE: _____ **DATE**:_____